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Income Inequality and Low Income in Canada: An International Perspective

by Garnett Picot and John Myles

No. 240



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Income Inequality and Low Income in Canada: An International Perspective

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11F0019 No. 240 ISSN: 1205-9153 ISBN: 0-662-39263-9



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February 2005

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Published by authority of the Minister responsible for Statistics Canada

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ABSTRACT

This paper provides an overview of income inequality and low-income trends in Canada from an international perspective. It addresses a series of questions, including:

- Is family income inequality rising in Canada after decades of stability?
- Is Canada a low- or high-income inequality country?
- Does Canada have a low or high low-income rate as compared to other western nations?
- Does the tax/transfer system reduce low-income rates in Canada more than in the U.S. or in European countries?
- Has the low-income rate and the depth of low income risen in Canada during the past two decades?
- Does rising low income among immigrants significantly affect the aggregate low-income rate?
- Do most spells of low income become long-term, and among which groups is persistent low income concentrated?

The paper uses the results from a number of papers to address these questions

Keywords: poverty, poverty dynamics, income inequality, inequality, international comparisons

I. Introduction

Trends in low-income levels and income inequality in Canada are two of the more closely watched indicators of economic well-being. In this paper, we review recent evidence on trends in low-income levels and income inequality in Canada, taking advantage of the development of new longitudinal and cross-national data sets to expand the focus of our review in both time and space.¹

With the advent of large-scale longitudinal surveys in the 1990s, we can now ask questions not only about the number of persons in low income during a particular period, but also about the duration of low-income status. While most spells of low income are quite short (e.g., Duncan, 1984; Drolet and Morissette, 2000; Finnie, 2000), others are more enduring, and concerns regarding economic exclusion are heightened if people remain in low income for long periods. Therefore, identifying the extent to which families remain in low income is key to the design of policies intended to improve the situation of the least advantaged.

Placing the Canadian experience in an international context constitutes a second focus of our review. Are inequality levels and low-income rates high or low in Canada by international standards? What role does the tax/transfer system play in reducing low income or income inequality in Canada relative to European countries or the United States? Determining the answers to these and similar questions, should assist policy-makers in the development of country-specific, evidence-based economic policies for Canada.

Part one of the paper reviews levels and trends in family income inequality. In part two, we turn our attention to levels and trends in low income, and in part three, to studies of income dynamics. In each section, we begin by situating the Canadian experience within a cross-national comparative context before moving on to consider nation-specific results for Canada.

II. Family income inequality

Measures of family income inequality provide a summary view of changes in relative income over the entire population distribution, whether national or international. What are the levels and trends cross-nationally? How does Canada compare? Is family income inequality rising in Canada? And if so, why? The section will begin with a cross-national comparative look at income inequality, to see how Canada measures up world-wide. We will then turn to an investigation of levels and trends in Canada.

^{1.} This review is largely based on research published by two divisions in Statistics Canada (the Business and Labour Market Analysis Division, and the Family and Labour Studies Division), the Luxembourg Income Study (LIS), and the Applied Research Branch of Human Resources Development Canada. The majority of the material here can be found in seven published papers from these groups. They are: (1) Tim Smeeding (2003) Government Programs and Social Outcomes: The United States in Comparative Perspective; (2) M. Frenette, D. Green and G. Picot (2004) Rising Income Inequality in the 1990s: An Exploration of Three Data Sources; (3) G. Picot, R. Morissette and J. Myles (2003) Low-income Intensity during the 1990s: The Role of Economic Growth, Employment Earnings and Social Transfers; (4) G. Picot and F. Hou, (2003) The Rise in Low-income Rates among Immigrants in Canada; (5) M. Corak, W-H Chen, A. Demanti, and D. Butler (Forthcoming) Social Cohesion and the Dynamics of Income in Four Countries; (6) M. Corak (2001) Are the Kids All Right? Intergenerational Mobility and Child Well-being in Canada; and (7) M. Hatfield, (2003) Persistent Lowincome: A Key Barrier to Social Inclusions.

II.1 Family income inequality in comparative perspective

For cross-national comparative purposes, our selection of countries is based on a now well-established body of comparative research (Esping-Andersen, 1990; Esping-Andersen, 1999) that identifies three well-defined "families of nations" or "welfare regimes" distinguished by broadly similar patterns in the way families, markets, and states interact in the distribution of economic welfare. Reflecting long-standing institutional and political differences, these clusters include the Scandinavian/Nordic nations represented here by Finland and Sweden, the countries of Continental Europe (Belgium, Germany, the Netherlands) and the "Anglo-Saxon" countries (Canada, the U.K. and the U.S.). ²

National differences in levels and trends in family income inequality are the result of a complex mix of factors related to labour markets, government tax and transfer policies, and patterns of family formation. Since most people get most of their income from the *labour market*, either directly (adults) or indirectly (children), for most of their lives, employment levels and the distribution of individual wages and earnings play a primary role in shaping the distribution of income. But the final distribution of (disposable) income is determined by *income transfers* (old age pensions, child benefits, etc.) made by governments and by the taxes levied on individuals and families to finance these expenditures. Economic well-being also depends on the ways that individuals form *families and households*. Single-earner families, for example, have a higher risk of low income in all countries, a risk accentuated by rising rates of marital separation.

Nation	Percent of full-time workers earning less than 65% of median earnings (1994)	Social expenditures on the non-elderly as percent of GDP (1999)	Percent of households that are lone parent
United States	25%	2.8	10.6
Canada	23%	6.0	7.3
United Kingdom	20%	6.4	9.0
Germany	13%	8.9	4.0
Netherlands	12%	10.5	3.5
Belgium	7%	8.9	4.3
Finland	6%	12.1	5.7
Sweden	5%	12.6	7.9

Source: Earnings, OECD (1996); Social Expenditures and Lone-Parent Households, Smeeding (2003) based on OECD.

As highlighted in Table 1, countries differ quite significantly on all three dimensions. Workers in the Anglo-Saxon countries—Canada, the United States, and the United Kingdom—face a much higher risk of low-wage employment and governments in these nations allocate a smaller share of national wealth to income redistribution. With the exception of Sweden, Canada, the U.S. and the

Our selection follows Smeeding (2003), who notes that adding additional Nordic countries (Norway, Denmark)
would simply mimic results for Finland and Sweden. Finally, recent data on income and poverty for France and
Australia are not yet available, while data for Southern European countries (Italy, Spain) are not well enough
reported to include in measures of economic well-being.

U.K also have more lone-parent households than elsewhere. Central European countries (represented here by Belgium, Germany and the Netherlands) fall in the middle of the distribution. The Nordic countries have both lower levels of low-wage employment and higher levels of social expenditure than other developed countries. Though differing in magnitudes, this national clustering of "risks" tends to be replicated in our cross-national comparisons of distributive outcomes.

Table 2 summarizes recent (1997-2000) results on cross-national differences in income inequality for these same eight nations. Measured with the Gini index, family income inequality was remarkably similar among the Central European and Nordic nations by the end of the century. Canada's position (Gini = 0.29) as more egalitarian than the U.S. (Gini = 0.37) and the U.K. (Gini = 0.35) but less equal than the countries of Central and Northern Europe replicates a familiar pattern found in many earlier cross-national comparisons. Comparing percentile ratios provides a somewhat more intuitive understanding of these differences. In the United States, family incomes near the top of the distribution (the 90th percentile) are over five times higher than family incomes near the bottom of the distribution (the 10th percentile), and in Canada about four times higher. In Sweden and Finland, the ratio is about three to one. Relative to families in the middle of the distribution (at the 50th percentile), low-income persons in the Nordic countries have incomes that are 57 percent of the median, compared to 47 percent in Canada and the U.K., and 39 percent in the United States.

Table 2: Measures of family income inequality: an international comparison*

After	tax/t	ransfer	(dis	posable)	income	
1	Adult	equival	lent	adjusted	**	

	Gini	Ratio of high to low income (P90/P10)	Ratio of low to middle income (P10/P50)	Ratio of high to middle income (P90/P50)
U.S.A. (2000)	0.37	5.43	0.39	2.10
U.K. (1999)	0.35	4.54	0.47	2.14
Canada (1997)	0.29	3.99	0.47	1.86
Netherlands (1999)	0.25	3.27	0.53	1.75
Germany (2000)	0.25	3.17	0.55	1.73
Belgium (1997)	0.25	3.19	0.53	1.70
Sweden (2000)	0.25	2.95	0.57	1.68
Finland (2000)	0.25	2.90	0.57	1.64

^{*} The Gini coefficient varies between 0 and 1.0: the higher the Gini, the greater the level of inequality. The results in Table 1 are based on family disposable (after tax and transfer) income, where the unit of analysis is the individual, and each individual is allocated the family "adult-equivalent adjusted" family income.

Source: Smeeding (2003).

Are current levels of income inequality high or low by historical standards? In Table 3, we show how inequality has evolved in these countries since the late 1970s. Perhaps the most remarkable

^{**} Adult Equivalent Adjusted income is a per-capita measure of income that accounts for the economies of scale associated with larger families. It is computed by dividing family income by the number of "equivalent adults" in the family. A family of four may have two equivalent adults, based on the assumption that four people in one household is the equivalent of two people living on their own.

feature of these results is the stability in the relative ranking of countries despite change. Countries that had higher levels of inequality (including Canada) at the beginning of the period also had higher levels at the end of the period. The Nordic countries (Finland, Sweden) retained their distinctively low levels of inequality through the mid-nineties, at which point they began to move toward Central European levels. Canada's position relative to the U.S. and the U.K., however, has changed quite dramatically since the 70s. At the beginning of the period, the difference between Canada and the U.S. was quite modest, and Canadian inequality was higher than in the U.K. By the end of the period, however, Canadian inequality was well below U.S. and U.K levels, a result of relative stability in the Canadian distribution compared to a long-term secular rise in inequality in both the U.S. and the U.K. The relative stability in the Canadian income distribution through the 80s and early nineties has been well documented for some time (Beach and Slotsve, 1996; Wolfson and Murphy 1998; Gottschalk and Smeeding, 1997) and reflects the fact that through the 1980s and early 1990s increases in market-based inequality among families were offset by rising social transfers. As we show in the following section, however, new evidence from more recent studies indicates that income inequality in Canada deviated from this long-standing stable trend and increased during the late 1990s.

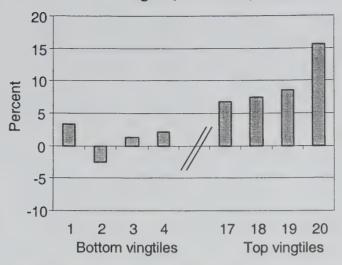
nations				
	Late Seventies	Mid-Eighties	Mid-Nineties	Most Recent
United States	0.30	.34	.36	.37
Canada	0.29	.28	.28	.29
United Kingdom	0.27	.30	.34	.35
Germany	0.26	.25	.26	.25
Netherlands	n.a.	.26	.25	.25
Belgium	n.a.	.23	.22	25
Finland	n.a.	.21	.22	.25
Sweden	0.22	.22	.22	.25

II.2 Is family income inequality rising in Canada?

The data in Table 3 show that income inequality, as measured by the Gini coefficient, changed little between the late 1970s and the late 1990s. These results are based on a survey that was terminated in 1997 in favour of a new survey. However, to assess recent trends one should analyze comparable points in the business cycle, and employ more recent data. To do so, we turn to two sources: the census, and a series that is a combination of the terminated Survey of Consumer Finances (SCF) and its replacement, the Survey of Labour and Income Dynamics (SLID). We focus on 1990 and 2000, roughly the last two business cycle peaks.³

^{3.} More precisely the business cycle peaks were 1989 and 2000, but census data are not available for 1989.

Chart 1: Percent Change in Total Family Income by Vingtile³, 1990-2000, Census Data



Note: ^aOrdering families by their total family income (after transfer, before taxes), from the bottom vingtile (the 5% of families with the lowest total family income) to the top.

Source: Statistics Canada, Census

The survey data (SCF plus SLID) registered a 6% increase in the Gini coefficient between 1990 and 2000, based on after-tax and transfer income (i.e., disposable income⁴), the most appropriate income measure. However, the census does not collect taxes paid data, so we turn to a slightly different definition of family income: income after government transfers and pre-tax. On that basis, the survey data again suggest a 6% increase in the Gini between 1990 and 2000, and the census data registered a 5% increase. Thus, these two sources indicate a moderate increase in income inequality over the 1990s (Frenette, Green and Picot, 2004).

Perhaps a more intuitive interpretation of the increase can be gained using top to bottom ratios. Based on survey (SCF and SLID) data, after taxes and transfer income among families in the top decile (the 10% of families with the highest incomes) was 7.5 times that of the income of families in the bottom decile in 1990. By 2000, this had increased to an estimated 8.7 times greater, an increase of 15% in the top to bottom ratio. Census data suggested a similar 14% increase in this ratio (based on pre-tax, after transfer income).

Chart 1 indicates the rise in inequality was primarily the result of faster rising incomes at the top of the income distribution. Census data suggest little change in family incomes among lower-income families between 1990 and 2000, while higher-income families saw increases between 7% and 16%.

^{4.} This includes all earnings, investment income, income from government transfers, pension income, income from other sources, and deductions of income taxes paid.

^{5.} The actual top to bottom ratio in SLID in 2000 was 9.3. However, the move from the SCF data to SLID data in 1996 resulted in the top to bottom ratio artificially increasing by 0.6. Hence, to make the 2000 ratio comparable to the 1990 ratio, we estimated that the 2000 ratio would have been 8.7 (9.3-0.6) had there been no change in data sources.

III. Low income

Measures of income inequality show changes in relative distribution of income over the entire population. Low-income statistics, in contrast provide a more focused view of changes at the bottom end of the income distribution. The low-income *rate* measures the proportion of people below a low-income cut-off while the low-income *gap* is a measure of the "depth" of low income among those who fall below the cut-off. Analysts concerned with economic exclusion typically focus on both measures. We examine both indicators when we turn to the Canada-specific trends. Because of measurement problems, however, the cross-national comparisons taken up in the following section only consider differences in low-income rates. Cross-nationally, we will look at levels and trends in the low-income rate; the role of transfers and taxes; and the real family income positions of poorer families in Canada and the United States. Turning next to the situation in Canada, we will probe Canadian low-income trends during the 1990s, before turning to the connection between immigrants and recent low-income trends.

III.1 Low income in comparative perspective

III.1 a) Levels and trends

For purposes of cross-national comparisons, we follow conventional practice and measure "low income" as including all persons in families with incomes less than 50 percent of the national median (Table 4). Our results are based on Smeeding (2003) who, in addition to the overall rate presents low-income rates for four subgroups of the population: children and adults in one- and two-parent households; childless non-elderly adults; and persons living in a household headed by a senior. Persons living in households with two parents and children, and childless adults are the most predominant household types in all nations considered.

		Families wit	h children		
Nation (year)	Overall	1 Parent	2 Parents	Childless	Seniors
United States (2000)	17.0	41.4	13.1	11.1	28.4
United Kingdom (1999)	12.3	31.3	8.9	7.7	24.6
Canada* (1997)	11.9	38.9	9.5	12.1	5.2
Netherlands (1999)	8.9	26.8	7.9	9.5	3.2
Germany (2000)	8.2	31.6	2.8	9.0	12.2
Belgium (1997)	7.9	12.5	6.6	7.3	13.1
Sweden (2000)	6.4	11.3	2.1	9.7	8.2
Finland (2000)	5.4	7.3	2.2	7.6	10.1

The low-income rate for all persons, using the 50 percent threshold varies from 5.4 percent in Finland to 17.0 percent in the United States. Higher rates are found in Anglo-Saxon nations, countries that also have higher levels of overall inequality. While overall rates in Canada and the United Kingdom (12 percent) remain well below those of the United States, Canada's relative

^{6.} The low-income gap is the income difference between the low-income cut-off and the average income among low-income families.

position varies substantially among sub-groups. At five percent, the low-income rate among Canadian seniors is now among the lowest among all of the affluent democracies. In contrast, until the late 90s, low-income rates among Canadian one-parent families (39 percent) and childless households (12 percent) were close to or above U.S. levels. As we highlight below, however, these historically high levels of low income among Canadian lone-parent families moved down sharply after 1997.

Trends in low-income rates (Table 5) tend to mimic those observed earlier for income inequality. Countries with the highest low-income rates (including Canada) at the beginning of the period (the late 1970s) also had the highest rates at the end of the period. However, while rates rose over the period in the U.S. and the U.K., Canadian rates declined somewhat. The Canadian decline in the overall rate is accounted for by two offsetting trends (panels B and C). While rates for children were somewhat higher by the late nineties, the decline in low-income rates among elderly households from 35 to just over 5 percent was dramatic, the single largest change of any reported in Table 5. Until the late seventies, low-income rates among the Canadian elderly were higher than in most affluent democracies, including the United States. Yet by the 1990s, low-income rates among Canadian seniors were among the lowest observed anywhere. As has been shown elsewhere (Myles 2000), it was during the 1980s that Canadian pension reforms of the 1960s began to exert their full effect. Specifically, by the late 1970s, more and more retirees had qualified for benefits under the Canada and Quebec Pension plans, the result of legislation introduced in 1965, and this has greatly hastened the change in low-income rates of the elderly.

Table 5: Relative low-income rates* from the late 70s to the end of the 90s in eight nations

A. Total	Late seventies	Mid-eighties	Mid-nineties	Most recent
United States	15.8	17.8	17.8	17.0
Canada	13.9	11.4	11.3	11.9
United Kingdom	9.2	9.1	10.8	12.5
Germany	6.5	6.5	7.5	8.3
Netherlands	n.a.	4.7	8.1	8.9
Belgium	n.a.	4.5	5.2	8.0
Finland	n.a.	5.4	5.2	5.4
Sweden	6.5	7.5	6.6	6.5
B. All Children				
United States	20.4	25.1	24.5	21.9
Canada	14.4	14.9	15.4	15.7
United Kingdom	9.0	12.5	13.9	15.4
Germany	3.4	6.4	10.6	6.8
Netherlands	n.a.	2.7	8.1	n.a.
Belgium	n.a.	4.0	4.6	7.7
Finland	n.a.	2.8	2.0	2.8
Sweden	2.4	3.5	2.6	4.2
C. Elders				
United States	27.3	23.5	20.6	24.7
Canada	34.7	10.8	4.9	5.4
United Kingdom	21.6	7.0	15.1	20.9
Germany	17.6	10.3	7.0	11.6
Netherlands	n.a.	0.3	6.4	3.2
Belgium	n.a.	10.9	12.1	11.7
Finland	n.a.	11.9	5.6	8.5
Sweden	13.9	7.2	2.7	7.7

Note: * a relative measure based on a low-income cut-off defined as one-half the median family income in each country.

Source: Luxembourg Income Study (LIS).

III.1 b) The role of transfers and taxes

The extent to which income transfers (and taxes) redistribute income to the benefit of the least advantaged varies significantly among advanced economies. It is worth noting that countries differ in the extent to which services such as education or health care are provided publicly or privately so that estimates such as those presented below based on cash benefits alone do not capture the full range of government redistribution. In particular, relative to both the Central European and English-speaking countries, the Nordic countries provide much higher levels of publicly-financed social services such as child and elder care that are not accounted for in these comparisons.⁷

The standard approach to measuring the effect of transfers and taxes is to compare the lowincome rate on a pre-transfer/tax basis (market income) with the low-income rate after transfers and taxes (disposable income). Such comparisons only measure the direct effects of income transfers, however, and possible behavioural responses are not accounted for. Moreover, behavioural responses, such as work and savings disincentives in response to social transfers may vary among countries because of differences in both the level and design of these benefits. As a result, one cannot conclude that the low-income level in a country in the absence of social benefits would be the level observed based on market incomes alone. In the absence of the social benefits system, work and savings patterns—and hence the distribution of income before transfers and taxes—would undoubtedly be quite different than those observed in the current data. This caveat is especially important when examining the redistributive effects of transfers for retirees (i.e., public pensions). In countries like Sweden and Germany, the public pension system provides most of the income required to maintain pre-retirement living standards so that workers have less incentive to save in the form of either personal retirement accounts or occupational pensions than workers in Canada and the United States. In short, for the elderly, "behavioural response" tends to swamp the results and we mainly focus our attention on social transfers to working-age adults and their children.

Table 6 summarizes the overall impact of taxes and transfers (including those for retirees) on low income levels from Smeeding's (2003) eight-country comparison at the end of the 90s and Corak et al.'s (2003) analysis of four countries in mid-1990s. Despite differences in data sources, the results are remarkably consistent.⁸ Among the eight countries, the cash tax/transfer system in the U.S. reduced low income the least. The reductions were somewhat higher in Canada and the U.K than in the U.S., but generally less than in the European countries.

^{7.} Refundable tax credits such as Canada's National Child Benefit Supplement and the U.S. Earned Income Tax Credit are included. Some in-kind benefits such as Food Stamps in the U.S. are also included.

^{8.} Corak et al. draw on longitudinal data in order to study income dynamics (see below) and the Smeeding paper relies on cross-sectional data from the Luxembourg Income Study.

Table 6: Percent reduction in low-income rates, income before taxes/transfers compared with income after transfers and taxes, all persons

Nation	Smeeding (2003) Percent reduction	Corak et al. Percent reduction
United States	28	28
United Kingdom	61	53
Canada	52	52
Netherlands	59	n.a.
Germany	71	64
Belgium	75	n.a.
Sweden	78	n.a.
Finland	70	n.a.

Source: Smeeding (2003) and Corak et al. (forthcoming).

As shown earlier (Table 4), low-income rates among families with children differ markedly among countries and could result from large differences in the earnings of lower income families rather than national differences in income transfers. Strikingly, however, the risk of low income in lone-parent families before transfers is remarkably high and uniform across countries (Table 7, Panel A). About 50 percent of all lone-parent families have incomes less than half the median income, and the United Kingdom (76 percent), not the U.S. (49 percent), is the outlier. While starting from pre-transfer levels almost as high as those in Canada and the U.S, Finland, Sweden, and Belgium are especially effective at reducing low-income rates among lone-parent families. U.S. transfers to lone parents have only a very modest impact on low-income levels, so that lowincome rates are almost as high after (41 percent) as before (49 percent) transfers and taxes. At 53 percent, low-income rates before transfers are higher among Canadian than among U.S. loneparent families, but Canadian transfers evidently have a greater impact, as they reduce the loneparent rate by 27 percent, as compared to 15 percent in the United States. Despite this, the end result was, until recently, quite similar: 39 percent of Canadian lone-parent families had low incomes after transfers and taxes, as compared to 41 percent in the United States. As we report below, however, rising earnings among lone-parent families since 1997 have led to a substantial reduction in the low-income rate of lone-parent families, a possible result of changes in the design of the child benefit system. Most two-parent families earn enough to avoid low-income in all countries (Table 7, Panel B). As with lone-parent families, Canada does better than the U.S. in reducing low-income levels among two-parent families but less successful than the European countries.

Table 7: Low-income rates before and after transfers and taxes for children and adults in one- and two-parent households

A. One-parent families and children

Nation (year)	Before transfers and taxes	After transfers and taxes	Percent reduction
United States (2000)	48.6	41.4	14.8
Canada (1997)	53.3	38.9	27.0
United Kingdom (1999)	75.6	31.3	58.6
Germany (2000)	51.0	31.6	38.0
Netherlands (1999)	55.2	26.8	51.4
Belgium (1997)	45.1	12.5	72.3
Finland (2000)	41.2	7.3	82.3
Sweden (2000)	48.3	11.3	76.6

B. Two-parent families and children

Nation (year)	Before transfers and taxes	After transfers and taxes	Percent reduction
United States (2000)	13.9	13.1	5.8
Canada (1997)	15.6	9.5	39.1
United Kingdom (1999)	17.8	8.9	50.0
Germany (2000)	7.4	2.8	62.2
Netherlands (1999)	9.9	7.9	20.2
Belgium (1997)	12.6	6.6	47.6
Finland (2000)	10.7	2.2	79.4
Sweden (2000)	9.6	2.1	78.1

Source: Smeeding (2003).

III.1 c) Real living standards of poorer families in Canada and the United States

It is common practice to focus on relative low-income measures when presenting international comparisons of well-being. The notion is that well-being is a function of the individual's relative position in a country's income distribution. In other words, it is the individual's relative economic position in the community (i.e., nation) in which he or she resides that is important. Nonetheless, some knowledge of absolute (or "real") levels of income across nations is also useful. Smeeding (2003) argues that this is particularly important when considering poorer families with children, since the children's life-chances are influenced by their family's real standard of living. It is possible, for example, that real family living standards among poorer families in Canada might be lower than in the U.S. since *average* living standards are higher in the latter country.

To determine if this is the case, "purchasing power parity" (PPPs) rates are used to convert Canadian to American dollars (or vice-versa). Ideally, PPPs provide an estimate of the amount of

money needed to purchase an identical basket of goods and services in, say, Canada, as compared with the United States. There are shortcomings with these measures, as noted by Smeeding (2003). A larger percentage of health care, education, and perhaps housing is funded by government in Canada than the United States. Hence, less "real" family income is required to purchase these kinds of commodities in Canada than in the United States. This means that the real purchasing power of the incomes of poorer families will be underestimated in Canada relative to the U.S. and the extent of the underestimate remains unknown.

Bearing these shortcomings in mind, we use data for 1997 for both countries, and PPPs developed by Statistics Canada explicitly for Canada-U.S. comparisons. Wolfson and Murphy (2000) report that low-income families in Canada had higher real disposable family incomes (after taxes and transfers) in 1997 than their American counterparts. Among lower income families, real after-tax/transfer family income is higher in Canada than the U.S. but at the top of the income distribution, the opposite is true: more affluent U.S families have higher real income than more affluent Canadian families. Among the poorest 40% of all families, incomes among Canadian families are higher than their U.S counterparts while among the 60% of families above the 40th percentile, the reverse is true.

Using the OECD's PPP conversion rate, Smeeding (2003) also finds that "real" income among poorer Canadians was higher than among their American counterparts. Comparing families at the 10th percentiles in their country's income distribution, he finds that real disposable income among poorer Canadian families is about 15% higher than among poorer American families. Of the eight countries in the comparison, in fact, only poorer Canadians had real family incomes in any way significantly above their U.S counterparts. In real dollars, the U.S poor were as well-off as the poor in other countries, although the low-income rate is much higher in the U.S. than elsewhere.

Smeeding also concludes that richer Americans have significantly higher "real" incomes than richer Canadians. Focusing on families at the 90th percentile, he finds that real disposable income among high income families was about 15% higher in the U.S. than in Canada. Nevertheless, the Canadian "rich" had higher real family incomes than those in Central and Northern Europe.

IV. Low-income rates in Canada

IV.1 Changes in Canadian low-income levels during the nineties

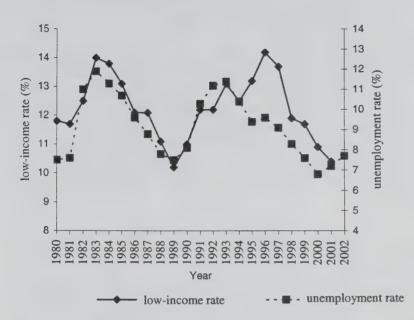
As shown in Chart 2, the low-income rate typically tracks the unemployment rate. Rates tend to rise during recessions and fall again as recovery sets in. However, in the 1994 to 1997 period, the low-income rate in Canada rose despite improving economic conditions. Two papers, Osberg, (2000), and Picot, Morissette, and Myles, (2003) have concluded that this deviation was related to the fact that, despite recovery, earnings did not increase to any great extent among poorer families, while social transfers (social assistance, EI benefits) fell. By 2001, though, Chart 2

^{9.} The use of these years would tend to underestimate the incomes of Canadian compared to Americans, since income rose in both countries between 1997 and 2000.

^{10.} Sweden, Finland, Germany, Belgium, Netherlands, U.K., Canada, U.S.

suggests that the low-income rate and the unemployment rate have resumed their historical relationship.

Chart 2: Low-income rate* and the unemployment rate (right axis), Canada, 1980 to 2002



Note:

* Based on Statistics Canada's after tax/transfer LICO, which is held constant

over the period except for adjustments for changes in the consumer price index.

Source: Survey

Survey of Consumer Finances, Survey of Labour and Income Dynamics, and the Labour Force Survey.

Strikingly, after years of relative stability, low-income rates among *lone-parent families* fell substantially in the latter part of the nineties. Statistics Canada calculations show that the low-income rate among lone parents fell 10 percentage points (from 42 to 32 percent) between 1997 and 2000. Though still not well understood, this change was mainly the result of increased earnings. Average market income among female lone-parent families rose 46% between 1996 and 2001, a trend that appears to be primarily the result of higher labour force participation. About 82% of female lone-parent families had earnings in 2001 while in 1993 the corresponding figure was 67%. This increase may reflect changes in child tax benefits (the National Child Benefit) that reduced employment disincentives and certain "re-investments" of transfers from social assistance to cash and non-cash programs for children. In effect, earnings trends among lone-parent families were a significant and important exception to the patterns reported for all low-income families described earlier.

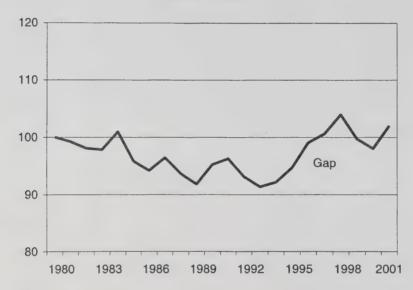
The low-income rate provides a truncated view of living standards among low-income families, however, since it focuses on change at only one point in the income distribution (the low-income cut-off) and ignores changes in income levels of persons in households that fall below this cut-off point. Such changes are captured by the low-income gap—the difference between the low-

^{11.} To maintain consistency with the low-income concept used in our comparative tables, figures are reported based on the LIM low-income cut-off, i.e., persons families whose adjusted income is less than 50% of median income. Results based on the more usual LICO-based measures, however, tell an identical story.

income cut-off and the actual income of low-income families expressed as a ratio of the cut-off—sometimes referred to as the "depth" of low-income (as noted above). At this point, therefore, it is useful to expand the discussion to include income gap.

The change in the low-income gap is shown in Chart 3 by indexing the gap to 100 in 1980. Despite falling earnings among low-income families during the 1980s, the low-income gap fell as a result of rising transfers (Picot, Morissette and Myles, 2003). From 1993 to 1998, in contrast, average real incomes among low-income families fell sharply resulting in a rising low-income gap. This increase was a result of falling earnings among families at the bottom of the income distribution despite economic recovery in a period when social transfers also declined (Frenette, Green and Picot, 2004; Picot, Morissette and Myles, 2003). As a result, unlike the trend in the low-income rate, the low-income gap did not return to the levels observed at the end of the eighties.

Chart 3: The low-income gap,* Canada, 1980 to 2001 Index, 1980=100



Note: * The gap is measured as (I-C)/ C
where I = average family income among low income families
C = the dollar value of the low-income cut-off
(Statistics Canada after tax/transfer LICO)

Source: Survey of Consumer Finances and Survey of Labour and Income Dynamics.

^{12.} The low-income cut-off used in this analysis is the Statistics Canada after tax/transfer LICO, but it is held constant (except for adjustments to account for changes in inflation) over this period. Hence, an increasing gap means that average real family incomes were falling among low-income families.

IV.2 New immigrants and low-income trends during the nineties

Low-income trends among the population as a whole tend to mask an underlying divide that has opened up between the Canadian-born and immigrants to Canada. The decline in earnings among successive groups of immigrants entering Canada through the 1980s and 1990s has been well documented (Bloom and Gunderson (1991); Abbott and Beach (1993); Reitz (2001); Green and Worswick (2002); Frenette and Morissette (2003); Aydemir and Skuterud (2004)). In 1980, the earnings of recent male immigrants working full-time, full-year were 84% of comparable Canadian-born workers. ^{13,14} By 2000, however, recent male immigrants were earning only 60% of their Canadian-born counterparts (Frenette and Morissette, 2003) and similar patterns are observed for women. ¹⁵

This rising earnings gap between recent immigrants and the Canadian-born is reflected in a growing divide in low-income rates. For most major groups among the Canadian-born, low-income rates have been falling through the 1980s and 1990s. In contrast, low-income rates among immigrants (net of business cycle effects) have been rising. Between 1980 and 2000, two years of business-cycle peaks, the low-income rate among recent immigrants rose from 25% to 36%, while falling among the Canadian-born from 17% to 14%. Even among traditionally vulnerable groups of the Canadian-born, such as seniors, lone parents, and young families, low-income rates either fell, or remained constant (Picot and Hou, 2003). Among very recent immigrants (in Canada five years or less), the low-income rate was 1.5 times those of the Canadian-born in 1980, rose to 2.7 times the native-born rate in 1995, and declined marginally to 2.5 times the native born rate in 2000.

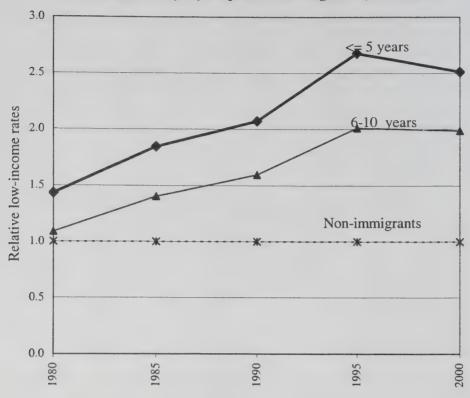
^{13.} Persons entering Canada from 1 to 5 years prior to the year of observation, in this case 1980.

^{14.} From a regression format, controlling for differences in education, estimated work experience, visible minority status, and region of employment (including the major cities).

^{15.} These points of comparison are at business cycle peaks (1980 and 2000), so cyclical variation does not account for this decline.

^{16.} The low-income rate among recent immigrants fell between 1995 and 2000 from 47.0% to 35.8%, but this was primarily associated with the significant improvement in economic conditions that caused the low-income rate for all groups to decline. Abstracting from business cycle effects (rates rise in recessions, and fall in recoveries), the low-income rate among recent immigrants has been increasing.

Chart 4: Low-income rates of immigrants relative to non-immigrants, by 5-year period of immigration, 1980-2000



Source: Picot and Hou (2003).

Recent immigrants were much more highly educated in 2000 (42% had university degrees) than in 1980 (when 19% had degrees). However, a university degree offered no protection against the general trend. While low-income rates are lower among the university-educated, the rate of increase in low-income levels was actually higher among the better educated (Table 8). Controlling for differences in source region, age, family status, and home language, low-income rates rose 24% among immigrants with less than a high school education but 66% among those with university degrees. Among the highly-educated, the increase was particularly evident during the 1990s (Picot and Hou, 2003), a period when, paradoxically, there was widespread concern about the need to attract more highly-skilled people to sustain a knowledge-based economy.

Table 8: Low-income rates (before taxes), recent immigrants (predicted from logistic regression model*)					
	1980	2000	% change		
< High school	33.1	41.2	24%		
High school grad	27.1	40.6	50%		
Some post-secondary	22.0	37.9	72%		
University degree	17.3	28.8	66%		

Note: * Controlling for differences in among education groups in source region, age, family status and home language

Source: Picot and Hou (2003).

These trends have significant implications for Canada's major urban centres (Table 9) where most immigrants settle. Indicatively, Toronto's low-income rate increased 1.9 percentage points between 1990 and 2000 and *all* of the increase was concentrated among recent immigrants. The *joint effect* of the increase in the immigrant share of Toronto's population and the increase in the immigrant low-income rate raised the overall Toronto low-income rate by 2.8 percentage points, a change that was offset slightly by a decline of 0.9 of a percentage point among the Canadian-born. A similar pattern was observed in Vancouver, where the joint effect of higher rates and population shares among immigrants raised the low-income rate by 4.7 percentage points, partially offset by a 1.1 point decline among the native-born.

		Change associated with:		
	Change in low-income rate	Canadian-born	Immigrants	
Canada	+0.05pp	-1.0pp	+1.1pp	
Toronto	+1.9pp	-0.9pp	+2.8pp	
Vancouver	+3.1pp	-1.7pp	+4.7pp	
Montreal	+0.3pp	-1.1pp	+1.4pp	

V. Low-income dynamics

With the advent of longitudinal household surveys, analysts are now able to establish not only levels and trends in low income but also patterns of entry and exit from low-income, the duration of low-income spells, and the movement of individuals within the income distribution. Income dynamics analysis is concerned with the fluidity of movement among various income states, and the determinants of these flows. As with unemployment, higher rates of low income in one period (or one country) than another is rather more serious if it reflects a rise or difference in long-term, relatively permanent entrapment ("social exclusion") than if it reflects an increase or difference in short term spells of low-income. If we could choose our country of birth, for example, we might be willing to trade off a somewhat higher risk of experiencing "poverty" or unemployment in country X if we knew that our chances of quickly exiting from that state were higher than in country Y. In this section, we begin by reviewing some cross-national evidence to see how Canada fares relative to other countries. We then turn to look at the most vulnerable groups in Canada, and the concentration of persistent low-income in this country. We will conclude by examining the correlation between the incomes of parents and their children in Canada. Is low-income persistent across generations?

V.1 Low-income dynamics in a comparative context

For many, low income is a transient condition. Corak et al.'s analysis of low-income dynamics in Canada, Germany, the U.K., and the U.S. shows that between one-third and one-half of all people who enter low income exit after one year (Table 10).¹⁷ At the other extreme, between 20 and 30 percent of all people who actually enter low income find themselves still in that state after five years. Though limited in its comparative scope to only four countries, the results of Corak et al.'s

^{17.} As in other cross-national comparisons, the low-income cut-off is one-half the median income.

study indicate that national differences in *persistent* low-income is correlated with higher inequality and low-income levels. Of those entering low-income in the U.S., 31 percent were still in the state after five years, compared to 24 percent in Canada, and 18 percent in Germany and the United Kingdom. Since the number of people persistently in low income depends not only on how long they remain in that state, but also on how many enter, a somewhat better indicator of long term "exclusion" is the percentage of the total population in low-income over an extended period. During the six year period analyzed by Corak et al., 5.4 percent of the population was in low-income in all six years in the U.S., 4.4 percent in the U.K., 2.9 percent in Canada, and only 1.9 percent in Germany. A similar pattern has been found in studies of earnings mobility (OECD, 1996:89-90); countries with *a smaller* share of workers in low-wage jobs (see Table 1) also had greater "success" in moving low-wage workers into higher wage categories (median earnings or better) after five years.¹⁸

	Canada	Germany	U.K.	U.S.
 A. Percent leaving low	income after one vea	l ar		
	38.4%	46.6%	41.1%	36.4%
 B. Percent in low inco	me after five years	1	I	
	24.4%	17.8%	18.1%	31.1%
C. Percent of the popu	lation in low income	at least once	1	
	24.1%	19.5%	29.7%	35.1%
 D. Percent of the popu	lation in low income	in all six years		
	2.9%	1.9%	4.4%	5.4%

Note:

Based on the Survey of Labour and Income Dynamics for Canada, the British Household Panel Survey, the German Socio-Economic Panel, and the Panel Survey of Income Dynamics in the U.S.

*1993 to 1998 (1990 to 1996 for the U.S.)

Source: Corak et al. (2003).

To develop policies related to social exclusion, some understanding of why people enter and exit a low-income state is necessary. Generally speaking, changes in family earnings related either to acquiring or losing a job or to significant changes in wages and hours worked within a given job are the most important factors, followed by changes that occur as a result of marriage (or common-law union), or a change in the number of children in a household. It must be noted, however, that the pattern varies significantly, according to family status.

Picot et al. (1999) looked at children and low income in the 1990s, asking why children moved into or out of low income. Among children in two-parent families, virtually all of the movement was associated with an increase in the labour market income of the parents. Among children in single-parent families, in contrast, 48 percent of the exits were related to marriage or commonlaw-union, 43 percent to changes in the earnings of the parent, and the remainder to other income changes, including social transfers. Hence, while employment related change was the primary

^{18.} Unfortunately, the OECD results on earnings mobility did not include Canada.

factor determining exits, among single parents, family formation patterns were as important as changes in employment characteristics (e.g., job changes, wages, or hours worked).

In their four-country comparison, Corak et. al. report similar results (Table 11). In the total population, changes in employment income were the dominant factor accounting for exit from low income in Canada (46%), Germany (45%) and especially in the United States (58%). In about one-third of the cases in Canada, exit was associated with a change in family status while among lone-parents the figure was 56 percent. Changes in family status play a smaller role in Germany largely because the rate of lone parenthood is considerably lower (see Table 1). The same types of changes account for entry into low income. For most people, entry to low income is associated with employment-related change but for women in two-parent families it is often related to separation or divorce.

Table 11: Reasons for exits from low income during the 1990s				
% of cases where the event associated with exit was:	Canada	Germany	Britain	U.S.
Change in employment earning (head or spouse)	45.5%	45.2%	36.9%	58.3%
Other income change (including social transfers)	20.2%	39.0%	36.7%	16.2%
Changing family status	34.3%	15.8%	26.4%	25.5%

Note: 1993-99 for Canada, 1991-99 for Germany and Britain, and 1990-96 for the United States.

Source: Corak et al. (2003).

V.2 Intergenerational income mobility

The previous section dealt with the persistence of low income in the short-run. However, analysts have long asked questions regarding the persistence of low income from one generation to the next. Is there a high correlation between the incomes of parents and their children? Do children raised in low-income families tend to have low incomes when they are adults? Or alternatively, is there a great deal of mobility between the top and bottom of the income distribution across generations?

Policy-makers in Canada have concerns over whether children raised in poverty are themselves poor as adults. Is there, in fact, a high correlation between the income of parents and children? And is persistent low income intergenerational in Canada? In fact, in an early Canadian study, Corak and Heisz, (1999) found a substantial amount of income mobility between generations (Table 12). Focusing on earnings, they compared the father's "permanent" earnings when the son was aged 13 to 17, to the son's earnings as a young adult (aged 29 to 32).

^{19.} The average earnings over a five-year period. For any given person, there may be substantial variation in annual earnings, and averages over longer periods provide a better estimate of longer-run or "permanent" earnings.

Table 12: Intergenerational earnings mobility: earnings* of fathers, and sons as young adults, 1980s to 1990s

	By earnings quartile				
		Sons earnings			
		Тор	Third	Second	Bottom
	Тор	0.345	0.248	0.205	0.202
Fathers	Third	0.271	0.269	0.241	0.219
Earnings	Second	0.212	0.263	0.273	0.252
	Bottom	0.172	0.220	0.281	0.327

Note: *Fathers annual earnings: average over 5 years when children were age 13 to 17. Sons earnings: average over 3 years when sons were age 29 to 32. Corrected for life cycle effects (age). 400,000 father/son pairs from taxation data

Source: Corak and Heisz (1999).

Sons who "inherited" the relative earnings status of their fathers are identified in the diagonal of the table. Those who moved "up" are located below (and to the left of) the diagonal, while those who moved "down" are found above (and to the right) of the diagonal. The results highlight familiar patterns found in all mobility studies. First, the highest levels of intergenerational inheritance (about one third) are found at the extremes—the top and the bottom quartiles—in part, because such sons can only "move" in one direction. Second, short range mobility (to an adjacent quartile) is greater than long range mobility. For example, 28 percent of bottom quartile sons are in the second quartile by age 29-32, compared to 17 percent in the top quartile.

International comparisons indicate that the degree of intergenerational income mobility is relatively higher in Canada than in either the U.S or the U.K., and is roughly comparable to nations with a high degree of mobility, such as the Nordic countries (Journal of Economic Perspectives, Intergenerational Earnings Mobility, (Solon, 2002)). Children in low-income families in Canada are less likely to live in low income as young adults than their counterparts in the U.S. or the United Kingdom. Obviously, there are many possible factors that affect the degree of intergenerational income mobility, both within a country over time, and among countries. The degree of participation in post-secondary education, particularly by children of lower income families, and activities that families and society undertake to provide children with a "head-start" no doubt also play a role.

^{20.} We hasten to add that relative to LIS estimates of cross-national differences in low income and inequality, comparing results from national studies of intergenerational income mobility should be interpreted with extreme caution since results are highly sensitive to differences in measurement that are not accounted for by existing mobility studies. For example, the association between fathers' and sons' incomes are lower when measured early in the sons careers and when fathers incomes are measured over relatively few years. It is also worth noting that the intergenerational association tends for total income and wealth than for individual earnings.

V.3 The most vulnerable: The concentration of persistent low income in Canada

If persistent low income is highly concentrated among a few groups, then research focusing on outcomes of these groups will be useful. As already noted, entering and exiting low-income is not just a simple matter of finding or losing jobs. And even if it were, the underlying barriers to improved employment outcomes may vary tremendously among groups. These barriers and underlying causes of poor employment outcomes are almost certainly very different for, say, recent immigrants, than for single parents or persons with work disabilities.

Based on Survey of Labour and Income Dynamics (SLID), Michael Hatfield and his colleagues at Human Resources Development Canada have attempted to identify those groups that account for a disproportionate share of persistent low income is concentrated (Hatfield, 2003). They find that while accounting for only 26 percent of the population, 62 percent of all persons in persistent low income over the 1996-2000 period were in one of five groups (Table 13): lone-parents; unattached persons aged 45 to 64; recent immigrants (in Canada 10 years or less); persons with work-limiting disabilities; and off-reserve Aboriginal people.²¹ Persons with work-limiting disabilities constituted the single largest group (26 percent) of individuals who were persistently in low-income population over the period, followed by recent immigrants and unattached individuals aged 45 to 64.

	Percent of population 16-64	Low income in 2000	Low income measure over 5-year basis (persistent), 1996-200
Percent: members of at least one of the five groups	25.9%	56.2%	62.1%
By group:			
Lone parents	3.7%	10.3%	13.1%
Unattached 45-64 yrs.	5.5%	19.0%	16.6%
Recent immigrants (10 yrs.)	5.5%	11.7%	16.6%
Work – limiting disability	10.7%	22.6%	26.3%
Off-reserve Aboriginal	3.1%	5.1%	5.5%
Others not in the 5 groups	74.1%	43.8%	37.9%

It would be incorrect to think that all persons in these five groups find themselves at the bottom of the income distribution for extended periods. Even among these groups, a minority is exposed to low income on a long-term (or even transient) basis (Table 14). Roughly a quarter to a third of the members of these groups find themselves in persistent low income over a five year period.²² Though not in the majority, however, "persistent" low income in these populations is about eight times the average of 4.2 percent found in the rest of the population.

^{21.} The data were not available to include on-reserve Aboriginal people.

^{22.} Excluding self-reported off-reserve Aboriginal people, where the proportion tends to be lower. If on-reserve population were included, this proportion would certainly be higher.

	% of group in low income		
	2000	Persistent over 1996-2000	
Lone parents	30.2	25.6	
Unattached 45-64 yrs.	37.1	33.7	
Recent immigrants (10 yrs.)	22.8	24.2	
Work-limiting disabilities	22.8	23.3	
Self-identified Aboriginal (off-reserve)	17.4	17.2	
Others	6.4	4.2	

There is a substantial debate regarding the extent to which the concentration of persistent low income should translate into a strategy of targeting policies. Focusing policies on specific groups could, by definition, exclude many others who may be in exactly the same economic position, but who would not be eligible for program assistance. Furthermore, broad support for redistributive programs may become problematic when eligibility is determined in part by group membership rather than by some measure of need. Using the information on group concentration to determine underlying causes of persistent low income, and developing policy strategies that are then made available to the entire population may be the most fruitful approach.

VI. Summary and conclusion

The standard conclusion of the research literature on Canadian incomes through the mid-nineties was that, despite some worrying developments, Canada had largely avoided the sharp rise in income inequality evident in both the U.S. and the U.K since the mid-seventies. The "worrying developments" included the declining earnings of younger adults (under 35) and the corresponding impact of this development on young families. Changes in earnings combined with changing patterns of labour market participation and family structure produced a sharp rise in inequality in market incomes (earnings) among families. However, through the mid-nineties most if not all of this change was offset by rising income transfers.

Recent evidence indicates all this began changing in the 1990s. The gains associated with the economic expansion of the 90s went mainly to higher income families while the earnings of poorer families stagnated and social transfers fell. The result was an increase in family income inequality. While estimates of the size of the increase depend on the data source, two of three data sources indicate the increase was substantial.

The mid 1990s also saw an unexpected increase in the low-income rate in Canada, as it deviated from its expected trend based on the unemployment rate: as unemployment fell, the low-income rate continued to rise. As with the increase in inequality, this development was associated both with earnings problems among poorer families and declining social transfers. By 2001, the low-

income rate appeared to be back on its expected long-term trend as indicated by the unemployment rate. This was not the case for the "depth" of low income among low income families, which increased during the 1990s. Overall, the economic position of families in low income deteriorated over the 1990s, basically eliminating the gains made during the 1980s.

Recent *changes* in low income places the focus squarely on recent immigrants. While low-income rates have been falling among most Canadian-born groups, rates have been rising rapidly among recent immigrants. This deterioration in family welfare is related to the declining earnings of recent immigrants during the 1980s and 1990s despite their very high level of educational qualifications. As a result, in the major cities virtually all of the increase in the low-income rate during the 1990s was concentrated among immigrants. Although immigrants are increasingly selected based on labour market related criteria—many more have university degrees, and more are in the "economic" immigrant class in the late 90s than in earlier periods—their labour market outcomes and low-income rates deteriorated through the 1990s in particular.

In contrast to these "bad news" stories, there are at least two "good news" stories to report. The dramatic decline in low-income levels among Canadian seniors since the 1970s, a result of the maturation of legislative changes introduced in the sixties, has been evident and well documented for some time. The recent and substantial decline in low-income rates among lone-parent families is less well understood. The decline appears to be the result of higher rates of labour force participation among lone parents, possibly reflecting changes in the family benefit system aimed at breaking down the strong work disincentives built into traditional social assistance schemes. Why this shift occurred and its future evolution are topics deserving of considerable attention.

In comparative terms, the "mid-Atlantic" metaphor—somewhere between the U.S. and Europe—has often been used to describe Canadian levels of income inequality, low income and social spending. In the 1970s, the metaphor was somewhat misleading since Canadian levels of low income and inequality left Canada anchored in close proximity to the American shoreline. Indeed *prior* to the mid-seventies, low-income rates among children and seniors were *higher* in Canada than in the United States. Since then, the metaphor has become somewhat more accurate not so much because Canada has moved closer to Europe but because the U.S., now joined by the U.K., has moved further away from Europe.

With a high percentage of low wage jobs and modest social transfers for the working age population, the Canadian labour market functions more like those of the U.S. and U.K, than of most European countries. Canada, however, did not experience the sharp decline in union membership that has characterized the U.S. and the U.K. since the 1970s. Recent research (Card, Lemieux and Riddell 2003) demonstrates that the differential success of organized labour in the three countries is a major reason that Canada did not experience the large increases in earnings inequality that have characterized British and American labour markets.

The direct redistributive effect (excluding behavioral response) of cash transfers and taxes on inequality and low income is greater in Canada than in either the U.S. or the U.K. although considerably less than in most European countries. The result is a lower level of family income inequality and lower relative low-income rates in Canada than in the U.S. or U.K, but levels significantly higher than that observed in most of Europe. Canada's success at getting low-

income rates among the elderly to very low levels even by European standards is a notable exception to this pattern. Moreover, real living standards are somewhat higher among Canadian than among American low income families are somewhat higher than in the U.S. despite the fact that average living standards are higher in the United States.

From a policy perspective, persistent low income is a major concern. Although most people do not remain in low income for long periods of time, approximately 3% to 5% of the Canadian population is in low income for four to six years or more. While changes in labour market earnings, associated with job gains or losses, or change in wages or hours of work, are the major determinants of flows into and out of low income, changes in family status also play an important role. Among female single-parents in particular, one of the major groups at risk of low income, marriage and divorce are important determinants. Approximately half of the exits from low income among single parents are associated with a marriage or common-law union and roughly the same share of single parents who find themselves in low income are there because of a divorce or separation.

Persistent low income tends to be concentrated among five groups: single parents, recent immigrants, people with work disabilities, unattached persons aged 45 to 64, and Aboriginal persons. These groups account for about two-thirds of all persistent low income, and the likelihood of being in persistent low income is six to eight times higher among people in these groups than for the rest of the population.

Persistence of family income levels is of interest not only over an individual's lifetime but also between generations. Concerns regarding the extent to which children who are raised in poverty are themselves, as adults, in poverty have long been expressed. Recent work on this topic suggests that there is definitely not a one-to-one correspondence between the incomes of parents and their children. Most children from low-income families are not, as young adults in low-income themselves. The correlation between the income of the parent and of the child (as a young adult) is stronger among high-income than low-income families; higher income families are more likely to pass on their economic status to their children than lower income families. Furthermore, among the five or so countries for which comparisons are possible, Canada appears to have a high level on intergenerational income mobility. The income position of children (as young adults) is less dependent on the position of their parents in Canada than in the U. S. or the U.K., and on a par with the higher levels of intergenerational mobility seen in the Nordic countries.

References

- Abbott, M.G. and C.M. Beach. 1993. "Immigrant Earnings Differentials and Birth-year-effects for Men in Canada: Post-war-1972." Canadian Journal of Economics. 26, 3: 505-524.
- Aydemir, A. and Skuterud, M. 2004. "Explaining the Deteriorating Entry Earnings of Canada Immigrant Cohorts: 1966-2000." Analytical Studies Research Paper Series 11F0019MIE2004225. Analytical Studies Branch. Ottawa: Statistics Canada.
- Beach, C. and G.A. Slotsve. 1996. "Are We Becoming Two Societies? Income Polarization and the Myth of the Declining Middle Class in Canada." *The Social Policy Challenge*. 12. Toronto: C.D. Howe Institute.
- Bloom, D.E. and M. Gunderson. 1991. "An Analysis of the Earnings of Canadian Immigrants." In *Immigration, Trade and the Labour Market*. John M. Abowd and Richard B. Freeman (eds.). Chicago: The University of Chicago Press.
- Card, David, Thomas Lemieux and Craig Riddell. 2003. "Unionization and Wage Inequality: A Comparative Study of the U.S., the U.K. and Canada." NBER Working Paper 9473. Cambridge, MA: National Bureau for Economic Research.
- Corak, M. 2001. "Are the Kids All Right? Intergenerational Mobility and Child Well-being in Canada." In *The Review of Economic Performance and Social Progress, The Longest Decade: Canada in the 1990s.* K. Banting, A. Sharpe and F. St. Hilaire (eds.). Volume 1: 273-292.
- Corak, M., W-H. Chen., A. Demanti and D. Butler. (Forthcoming). "Social Cohesion and the Dynamics of Income in Four Countries". Analytical Studies Research Paper Series. Catalogue no. 11F0019MIE. Analytical Studies Branch. Ottawa: Statistics Canada.
- Corak, M. and A. Heisz. 1999. "The Intergenerational Earnings and Income Mobility of Canadian Men: Evidence from Longitudinal Income Tax Data." *The Journal of Human Resources*. 34, 3: 504-533.
- Drolet, M. and R. Morissette. 2000. "To What Extent Are Canadians Exposed to Low-Income?" Analytical Studies Research Paper Series 11F0019MIE2000146. Analytical Studies Branch. Ottawa: Statistics Canada.
- Duncan, G. 1984. "Years of Poverty, Years of Plenty: The Changing Economic Fortunes of American Workers and Families." Michigan: Institute for Social Research, University of Michigan.
- Epsing-Andersen, Gosta. 1990. The Three Worlds of Welfare Capitalism. Princeton, NJ: Princeton University Press.
- Epsing-Andersen, Gosta. 1999. The Social Foundations of Post-Industrial Economies. New York: Oxford University Press.

- Finnie, R. 2000. "The Dynamics of Poverty in Canada: What We Know, What We Can Do." C.D. Howe Institute Commentary, No. 145, September 28, 2000. (ISSN 0824-8001). Toronto: C.D. Howe Institute.
- Frenette, M., D. Green and G. Picot. 2004. "Rising Income Inequality in the 1990s: An Exploration of Three Data Sources." Analytical Studies Research Paper Series11F90019MIE2004219. Analytical Studies Branch. Ottawa: Statistics Canada.
- Frenette, M. and R. Morissette. 2003. "Will They Ever Converge? Earnings of Immigrants and Canadian-born Workers over the Last Two Decades." Analytical Studies Research Paper Series 11F0019MIE2003215. Analytical Studies Branch. Ottawa: Statistics Canada.
- Gottschalk, P. and T.M. Smeeding. 1997. "Cross-National Comparisons of Earnings and Income Inequality." *Journal of Economic Literature*. 35, 2: 633-687.
- Green, D.A. and C. Worswick. 2002. Earnings of Immigrant Men in Canada: The Roles of Labour Market Entry Effects and Returns to Foreign Experience. University of British Columbia, Department of Economics, prepared for Citizenship and Immigration Canada.
- Hatfield, M. 2003. "Persistent Low-Income: A Key Barrier to Social Inclusions." Applied Research Branch, Human Resources Development Canada. Mimeo.
- Myles, John 2000. "The Maturation of Canada's Retirement Income System: Income Levels, Income Inequality and Low Income among Older Persons." *Canadian Journal on Aging*. 19, 3: 287-316.
- OECD. 1996. Employment Outlook. Paris: Organization for Economic Cooperation and Development.
- Osberg, L. 2000. "Poverty in Canada and the U.S.: Measurement, Trends and Implications." Presidential Address to the Canadian Economics Association, Vancouver, June 3, 2000.
- Picot, G. and F. Hou. 2003. "The Rise in Low-income Rates among Immigrants in Canada." Analytical Studies Research Paper Series 11F0019MIE2003198. Analytical Studies Branch. Ottawa: Statistics Canada.
- Picot, G., R. Morissette and J. Myles. 2003. "Low-income Intensity during the 1990s: The Role of Economic Growth, Employment Earnings and Social Transfers." Analytical Studies Research Paper Series 11F0019MIE2003172. Analytical Studies Branch. Ottawa: Statistics Canada.
- Picot, G., M. Zyblock and W. Pyper. 1999. "Why Do Children Move into and out of Low Income: Changing Labour Market Conditions or Marriage and Divorce?" Analytical Studies Research Paper Series 11F0019MIE1999132. Analytical Studies Branch. Ottawa: Statistics Canada.

- Reitz, J. 2001. "Immigrant Success in the Knowledge Economy: Institutional Changes and the Immigrant Experience in Canada, 1970-1995." *Journal of Social Issues*. 57, 3: 579-613.
- Riddell, W.G., B. Boudarbat and T. Lemieux. 2003. "Recent Trends in Wage Inequality and the Wage Structure in Canada." University of British Columbia, Department of Economics working paper. Prepared for the Equality, Security and Community Project on Inequality in Canada.
- Smeeding, T. 2003. Government Programs and Social Outcomes: The United States in Comparative Perspective. Prepared for the Smolensky Conference: Poverty, the Distribution of Income and Public Policy, University of California-Berkeley, December 12-13, 2003.
- Solon, Gary. 2002. "Cross-country Differences in Intergenerational Earnings Mobility." *Journal of Economic Perspectives.* 16, 3: 59-66.
- Wolfson, M. and B. Murphy. 2000. "Income Inequality in North America: Does the 49th Parallel Still Matter?" Statistics Canada Catalogue no. 11-010-XIB. *Canadian Economic Observer*. 13, 8: 3.1-3.24.
- Wolfson, M., and B. Murphy. 1998. "New Views on Inequality Trends in Canada and the United States." Analytical Studies Research Paper Series 11F0019MIE1998124. Analytical Studies Branch. Ottawa: Statistics Canada.

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